

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 March 2006 (09.03.2006)

PCT

(10) International Publication Number
WO 2006/024676 A3

(51) International Patent Classification:

B29C 33/56 (2006.01) **B29C 33/38** (2006.01)

(21) International Application Number:

PCT/EP2005/055858

(22) International Filing Date:

9 November 2005 (09.11.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

04270010.4 17 November 2004 (17.11.2004) EP

(71) Applicant (for all designated States except US): **HUNTS-
MAN ADVANCED MATERIALS (SWITZERLAND)**
GmbH [CH/CH]; Klybeckstrasse 200, CH-4057 Basel
(CH).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CLEAVER, Matthew**

[GB/GB]; 15 Hill Top View, Sutton in Ashfield, Notting-
hamshire NG17 1LP (GB).

(74) Agents: **BARUH, Colette** et al.; HUNTSMAN (EU-
ROPE) BVBA, Intellectual Property Department, Ever-
sleen 45, B-3078 Everberg (BE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: METHOD OF MAKING HIGH TEMPERATURE RESISTANT MODELS OR TOOLS

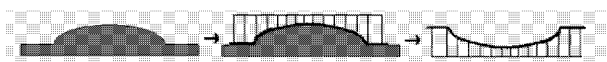
TOOL PRODUCTION PROCESSES

Traditional Process: Lengthy, requiring master

Boeing Process: Assembly using different adhesive and hand applied paddies

Present Invention: Streamlined process Using a machine dispensed curable paste
which is both adhesive and a machinable coating

Traditional process



Mold made from boards
or SMP in normal
manner

Laminate applied with
backing structure

Laminated tool
produced

Boeing process

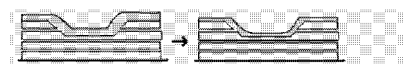


Honeycomb stacked
together and cured

Paddies applied by hand
and cured

Paddies cut to give final
tool

New patent



Honeycomb stacked and
stuck together with SMP

Part cured and then cut
to give final tool

(57) Abstract: A method of making High Temperature Resistant Models and Tools is provided. An assembly of substrates can be formed with intermediate adhesive layer of curable paste and same curable paste can be used as topcoat or sealer. The curable paste can be machine dispensed from a mixer mixing 2 components composition. The composition can contain a resin, a filler, a chemical thixotropy agent, a latent hardener and another hardener. The method provides easy and cost-effective manufacture of models or tools.



WO 2006/024676 A3



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— upon request of the applicant, before the expiration of the
time limit referred to in Article 21(2)(a)

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(88) Date of publication of the international search report:

27 July 2006

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.